

AN ASSESSMENT OF THE EDUCATIONAL NEEDS OF PEOPLE WHO WORK IN  
AGRICULTURE OR AGRICULTURE RELATED INDUSTRIES

by

JAMES EUGENE HALL

B.S., Kansas State University, 1985

---

A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

AGRICULTURAL EDUCATION

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1987

Approved by:

*John D. Pamley*  
\_\_\_\_\_  
Major Professor

20/68  
R4  
EDAO  
1987  
H34  
c.2

## ACKNOWLEDGEMENTS

I would like to extend my thanks and deep appreciation to those persons who help make this study possible.

To Dr. John Parmley, my major advisor, for his concern, wisdom, encouragement, and support throughout this study and during my graduate work in Agricultural Education.

To my fellow graduate students and Adult and Occupusional faculty and staff, for their assistance, support, and friendship.

To Dr. Richard F. Welton, for his never ending faith in my ability, and his support during my undergraduate and graduate work in Agricultural Education.

To Dr. Mary Evan Griffith, Dr. Parmley, Marvin Hachmeister, and Dr. Welton for serving on my graduate committee.

To my close friend and associate, Linds Long, for her support, encouragement, and for being a friend when I needed one.

To my dad, John Hall, and my family, for their support and wisdom, for which has encouraged me to reach for my greatest potential.

## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS.....	ii
TABLE OF APPENDICES.....	v
LIST OF TABLES.....	vi
CHAPTER .	
I.    INTRODUCTION.....	1
Objectives.....	3
Significance of the Study.....	3
Defination of Terms.....	4
Limitations of the Study.....	5
II.   REVIEW OF LITERATURE.....	6
Summary.....	12
III.  METHODOLOGY.....	14
Population.....	14
Sample.....	15
Instrumentation.....	15
Data Collection.....	16
Data Analysis.....	16
IV.   ANALYSIS AND INTERPRETATION OF DATA.....	17
Profile of Participants.....	17
Level of Organization.....	19
Type of Organization.....	20
Educational Programs Provided by Organization.....	21
Percentage of Time Devoted to Educational Programs.....	23
Educational Needs of People in Animal Science.....	24
Educational Needs of People in Agronomy....	27

Educational Needs of People in Agriculture Mechanics and Agriculture Construction.....	30
Educational Needs of People in Agricultural Finance and Resource Management.....	33
Educational Needs of People in Conservation of Natural Resources.....	35
Educational Needs of People in Agricultural Processing.....	37
Educational Needs of People in Agricultural Sales/Service.....	39
 V. MAJOR FINDINGS AND RECOMMENDATIONS.....	42
 Summary of the Study.....	42
Purpose.....	42
Objectives.....	42
Methodology.....	43
Major Findings.....	44
Analysis of Background Data.....	44
Analysis of the Educational Needs Data.	46
Recommendations.....	48
Recommendations for Further Studies.....	51
 BIBLIOGRAPHY.....	52

## TABLE OF APPENDICES

APPENDICES	Page
A. List of Agencies Which Identify Agriculture Organizations in Kansas.....	55
B. List of Agriculture Organizations Which Received a Survey Instrument.....	58
C. Cover Letter Sent to Survey Participants...	63
D. Survey Instrument Sent To Study Participants.....	65
E. Follow-up Letter Sent To Study Participants	72
F. Notice Which Was Sent To Survey Participants.....	74
G. Correspondence with Agricultural Education and Agricultural Mechanics Faculty.....	76

## LIST OF TABLES

TABLE		Page
1.	Kansas Agricultural Organizations by Category.....	14
2.	Agriculture Organization Affiliation.....	18
3.	Level at Which the Organization Serve its Members.....	20
4.	Type of Organization.....	21
5.	Educational Programs Provided by Organization.....	22
6.	Percentage of Time Devoted to Educational Programs.....	23
7.	Rank Order of Educational Needs by Priority Category in Animal Science.....	25
8.	Rank Order of Educational Needs by Type in Animal Science.....	27
9.	Rank Order of Educational Needs by Priority Category in Agronomy.....	28
10.	Rank Order of Educational Needs by Type in Agronomy.....	30
11.	Rank Order of Educational Needs by Priority Category in Agricultural Mechanics and Agricultural Construction.....	31

12.	Rank Order of Educational Needs by Type in Agriculture Mechanics and Agriculture Construction.....	32
13.	Rank Order of Educational Needs by Priority in Agricultural Finance and Resource Management.....	34
14.	Rank Order of Educational Needs by Type in Agricultural Finance and Resource Management.....	35
15.	Rank Order of Educational Needs by Priority Category in Conservation of Natural Resources.....	36
16.	Rank Order of Educational Needs by Type in Conservation of Natural Resources.....	37
17.	Rank Order of Educational Needs by Priority Category in Agricultural Processing.....	38
18.	Rank Order of Educational Needs by Type in Agricultural Processing.....	39
19.	Rank Order of Educational Needs by Priority Category in Agricultural Sales/Service.....	40
20.	Rank Order of Educational Needs by Type in Agricultural Sales/Service.....	41

## CHAPTER I

### INTRODUCTION

Kansas is one of the nation's most prominent agricultural states. In 1985 Kansas was the nation's number one producer of wheat and sorghum grain as well as being first in flour milling capacity. The state ranked second in cattle slaughter and third in cattle production ( Kansas State Board of Agriculture, 1985, page 2). In addition, Kansas is noted for being a top producer of other commodities. According to the State Department of Education, "Agriculture/Agribusiness in Kansas is basic to the economy of the state, generating billions of dollars and requiring the efforts of approximately one-third of the Kansas labor force. Of the total persons engaged in agriculture/agribusiness in Kansas, a majority are in production (farming and ranching) agriculture, while the balance are engaged in supplies, services, processing, and other supportive agriculture/agribusiness occupations". (Kansas State Department of Education, 1986). The United States Department of Commerce reported a state wide agricultural business payroll of \$37.4 million (U.S. Department of Commerce, 1985, page 1).

It is quite evident the agriculture/agribusiness industry is an important aspect in the Kansas economy. Because of its importance agriculture educators must provide

workers with the necessary skills and knowledge. To do so, educators must be able to identify competencies which are needed for people to work successfully in agriculture. It is also essential to determine what skills are critical needs and must be tended to first, which skills are commonly occurring needs and the needs of the agricultural work force in the future. By being able to identify and classify skills and competencies, agricultural educators can better develop instructional programs to meet the industry's need. Another benefit of classifying the needs as critical, common or future needs is that it can aid the educator in determining priorities.

In order to maintain quality programs, educators must be able to clearly determine the needs of the agricultural industry. To do so, educators should routinely conduct needs assessment surveys to determine needed skills and competencies.

In this study the investor decided to involve the agricultural organizations within the state of Kansas, as they represent the leaders of the agriculture industry. In addition agricultural organizations often sponsor non-traditional educational programs and develop instructional materials. In addition, it would appear that a more united effort between agricultural organizations and agricultural educators should provide substantial benefits for the Kansas agricultural industry.

### Objectives

The primary objectives of this study were to:

1. Determine current and future educational needs of the agricultural industry.
2. Compile a list of active agricultural organizations in Kansas which conduct some form of education program.
3. Provide a stronger link between the Agricultural Education profession and the agricultural organizations in Kansas.

### Significance of the Study

The significance of this study begins with identifying subject matter areas that need to be understand by agricultural workers. The nature of this study and its source should help make the findings of the study of interest to all agricultural educators in the state. High school vocational agriculture instructors should be able to use the information to develop their curriculum and enhanced their program. In addition, this study may be utilize by postsecondary agricultural educators as they provide specialized instruction to prepared people for employment in the agriculture/agribusiness industry.

### Definition of Terms

The following terms need clarification:

1. Critical Needs- Educational needs which are absolutely essential for people working in agriculture.
2. Commonly Occurring Needs- Educational needs which are frequently shared by people working in agriculture.
3. Future Needs- Educational needs that may become necessary for individuals to work effectively in agriculture in the near future.  
(1 to 5 years)
4. Participants- Contact person representing each agriculture organization which was involved in the study.
5. Vocational Agriculture/Agribusiness- The training of high school and/or postsecondary students through an instructional program to develop and/or supplement skills in agriculture/agribusiness occupations.
6. Human Relation Skills- Subject matter that is people oriented and involves a person's ability to work with other people.
7. Management of Resources- Subject matter relating to the management of a business. The

- ability to manage the financial inputs and outputs, as well as general management skills.
8. Knowledge and Practical Skills- Subject matter relating to a person having the capability of completing the tasks involved in the occupation area.
9. Research- Responses from participants that indicated a need for additional research.

#### Limitations of the Study

The limitations of this study include:

1. Only open ended questions were asked. Respondents were able to identify any item they felt was an educational need for people working in agriculture.
2. Only 53 percent of those organizations which were randomly selected to participate in the study choose to do so.
3. Only one contact person from each organization was sent a questionnaire. It was suggested to this individual who was sent the questionnaire to respond according to his or her organizations perspective.

CHAPTER II  
REVIEW OF LITERATURE

The literature which was review for this study covered needs assessments in agricultural education and vocational education. A review was conducted of needs assessment dealing with agricultural and vocational education in other states. An second area covered in the review was the justification and need to conduct needs assessments to determine competencies needed by people to work successfully in the agricultural industry.

Harland E. Priddle, past state secretary of agriculture, stated in the State Board of Agriculture Annual Report and Farm Facts, "Kansas is one of the nation's most prominent agricultural states" (Kansas Board of Agriculture, 1984, page 4). If one looks at the impact of the Kansas agricultural industry on the state's workforce you find "the agriculture/agribusiness industry requires the efforts of approximately one-third of the Kansas labor force (Kansas State Department of Education, 1986)". More specifically, Kansas agriculture is a multi-billion dollar industry. In 1985, the total value of field crops, livestock and poultry produced was over 5.16 billion dollars (Kansas Board of Agriculture, 1985, page 5). For the 1985 reporting period, a statewide agricultural business payroll of \$37.4 million and a statewide food and kindred products payroll of over

\$471 million was reported by the United States Department of Commerce (County Business Patterns, 1985, Kansas, U.S. Department of Commerce, page 1). These payroll figures do not include such agriculture industry areas as agricultural credit agencies, agriculture construction, and agriculture machinery, which the Department of Commerce figures into other major non-agricultural industry groups.

Agriculture and its related industries is the number one employer in the United States today, therefore the agriculture industry has a very large impact not only on Kansas, but has a large impact of the nation as well. John R. Block, former U.S. Secretary of Agriculture, states in Agriculture 2000 A Look at The Future, "as the nation's biggest industry, agriculture generates an estimated 23 million jobs, more than 22 percent of the entire work force in the United States".

According to Lee (1981) there are three jobs, in the off-farm sector of agriculture to every one job in farming or ranching. He indicated, that these individuals involved in off-farm jobs need competencies and training in agriculture. If workers in agribusiness jobs had this training then these agribusaines could operate more efficiently.

In a study conducted by the United States Department of Agriculture, (Graduates of Higher Education in the Food and Agricultural Sciences, July, 1980) investigators expected

the demand for college graduates in the food and agricultural sciences to exceed the available supply by 15 percent. In addition, they predicted a shortage of people with graduate degrees, indicating a need for highly trained individuals. The study also provided strong evidence that fewer college graduates in the food and agriculture sciences will have significant work experiences and background related to their degrees in the future.

In Agriculture 2000 A Look to the Future it stated, people with management training in one of four areas will be in demand by agribusiness to fill management positions. The four areas are Finance, Marketing, Personnel and Planning (page 79).

According to a report by the United States Department of Commerce (Farm Population of the United States, 1985, page 3), about 67 percent of the farm residents 15 years and over were in the labor force in 1985. This can be compare to a lower proportion of 64 percent of the non-farm population who are in the labor workforce. The report further indicated employed farm residents are equally divided between agricultural and non-agricultural jobs. The report went on to state that about 61 percent of the male farm residents are employ in agriculture occupations. While only 29 percent of female farm residents were employ in the agriculture industry in 1985. However, in the report, Agriculture 2000 A Look at the Future it indicated a trend towards increased

females labor force participation in agriculture, in the future (page 91).

According to VanAusdle in an article in The Agricultural Education Magazine (April 1983), Walla Walla Community College in Washington, conducted an environmental needs assessment as part of a planning process for their agricultural department. VanAusdle indicated the needs assessment was the first step in a seven step planning process. The assessment was concerned with obtaining, analyzing and reporting information reflecting current and future needs of the agriculture department. The needs assessment according to VanAusdle should also determine the education and training needs of present and prospective students. Another major area of the study was the determination of present and future agriculture employment and career opportunities. This assessment, according to VanAusdle, provided the agriculture faculty with documented information. With this information the faculty could then examined the program's mission and goals, than make adjustments and revisions in order to meet student and employer needs.

"Education, no less than business, is trying to improve its productivity, quality of product, and innovative capacities", stated Long (1983). In addition, education must justify the need for financial support. According to Long, at Utah State University the need for agriculture education

has been examined through a needs assessment program initiated in 1977. Long indicated assessment is a state-wide employee and competency study. In Utah the studies of competency and employee needs are done on a four year cycle. The assessment according to Long, collects information on the employment needs in farming; ornamental horticulture; agricultural mechanization; and feed, seed and grain operations. In addition, the assessment also surveyed employer-employee relationships, such as incentive and fringe benefits polices. At Utah State University, the faculty use the needs assessment to maintain an quality program and meet productivity criteria, according to Long.

In another report, Legacy (July 1977), indicated one of the most important aspects of vocational education programs is the training provided which leads to job placement. If this is the case then it is necessary for those persons who are planning and conducting vocational programs to consider the employment needs of the industry.

In agriculture we have seen a change in the place of agriculture employment. According to a report by the Kansas State Board of Agriculture the number of farms in 1910 were 178,000. Since that time there has been a steady decline in the number of farms to a record low of 74,000 in 1984. While the number of jobs available in production agriculture have declined the number of employment opportunities in agribusiness has increased. The state of Kansas is the

leading state in flour milling capacity and second in cattle slaughtered and commercial grain storage capacity, all of which are agribusiness related industries (Kansas State Board of Agriculture, 1984, page 102).

If agribusiness supplies two-thirds of the jobs in the agriculture industry (Lee, 1981), then agriculture educators need to have a good definition of an agribusiness. Davis and Goldberg (1957) offers this definition "all businesses providing inputs of production, processing and distribution of agricultural products are defined as agribusinesses".

According to Legacy (1977), the increased technology of agribusiness has demanded a corresponding increase in the training level of agribusiness workers. In addition, the growing array of businesses and industries providing supplies, production, processing and distribution services to agricultural production has required an increasing number of trained workers.

In a study conducted by Legacy (1977) in Indiana, he found the new technology as has a major affect on agribusinesses in Indiana, much like what can be found in Kansas. He identified these trends: 1.) the number of people actively engaged in full-time farming has decreased, while the production of food and fiber has increased; 2.) there are a multitude of new and changing agricultural related occupations which require highly skilled persons in occupations directly related to production agriculture.

Because of the increased importance of agribusiness, there needs to be a determination of what the present and future employment needs in production and non-production agricultural business are.

In the need assessment study conducted by Legacy, the data related to a number of objectives was presented. He identify the types of businesses which employ workers who are required to have agricultural experience. He identify the number of employees needed to fill entry level positions in agriculture related business, who needed agricultural training and experience . Moreover he identify the number of employees needed to fill entry level positions because of expansion in agricultural related businesses. From this information Legacy was able to gather employment needs data from various agribusinesses.

According to Legacy, his study has accomplished a major step toward providing meaningful job demand data for vocational program planning in agriculture.

#### Summary

In summarizing the information obtained from the review of literature several statements can be made.

1. Since production agriculture and related businesses and industries supply more than 23 million jobs, creating more jobs than any other industry, it is evident, that many people need agriculture related skills and training.

2. With the number of farms decreasing, there are fewer opportunities for employment in production agriculture. However, with the rapidly advancing technology which has been occurring, there is a greater need for people with agricultural competencies in agricultural related businesses.
3. Employers are finding fewer people entering the job market who have significant work experience and background related to their degrees and entry level position in agriculture.
4. A needs assessment can provide valuable background information which will reflect current and future needs of workers. By conducting an needs assessment educators can more accurately develop a plan for providing a quality education.
5. In order for educators to provide quality education in agriculture at the secondary or postsecondary levels, they need to have access to current data on the competencies needed by people in order to be successfully employed in the industry.

The review of literature answered many questions concerning the conducting of a needs assessment, as well as the need for conducting such an assessment in agriculture. However, the review did raise questions concerning the current data available for educators in Kansas. Therefore, the researcher conducted this study to collect information on the current and future educational needs of people who are involved in the agriculture industry.

## CHAPTER III

## METHODOLOGY

## Population

The target population for this study was the agricultural organizations in Kansas as identified by the State Board of Agriculture, Kansas State University College of Agriculture and Kansas Foundation for Agriculture in the Classroom. A total of one hundred thirteen organizations have been identified by the three agencies. The investigator assigned each organization to a category to facilitate sampling. Table 1 presents a break down of organizations by category.

TABLE 1  
Kansas Agricultural Organizations by Category  
( N = 113 )

Category	Number
Animal Science	56
Agronomy	20
Agricultural and Agribusiness	29
Special Interest and Horticulture	8

### Sample

The study was designed to draw a 50 percent sample and thus provide each organization with an equal opportunity to participate in the study. Fifty percent of the organizations were randomly selected from each of the previously identified categories.

### Instrumentation

The Education in Agriculture Needs Assessment Questionnaire was developed by the investigator following a review of related literature and research. The survey instrument was reviewed by the Agricultural Educational Faculty at Kansas State University and several graduate students in Agricultural Education. The questionnaire was field tested by sending the questionnaire to contact persons from organizations that were not randomly selected to participate in the study. The contact persons who were involved in the field test were located on the campus of Kansas State University. Final modifications to the instrument were made following the completion of the field test.

#### Data Collection

Survey instruments were mailed to contact persons of randomly selected agricultural organizations. Two weeks after the initial mailing, follow-up questionnaires were sent to all non-respondents. An additional 10 days were scheduled for the return of follow-up questionnaires. Following the mail follow-up of non-respondents, approximately a 10 percent random sample of remaining non-respondents were contacted by phone to determine if significant differences exist between respondents and the non-responding group. All responses were treated as group data with questionnaires numbered for grouping into categories and identification of non-respondents.

#### Data Analysis

The investigator analyzed the data with some assistance as needed from other graduate students in Agricultural Education. All responses were categorized by the investigator, and then frequency counts and percentages were tallied by hand. They were then recorded by the investigator.

CHAPTER IV  
ANALYSIS AND INTERPRETATION OF DATA

In this chapter, the results of the survey, will be disclosed. The survey was completed by twenty-nine agricultural organizations in Kansas. Information was gathered concerning industry affiliation, at what level the organization serves its members, type of organization, whether or not the organization has an educational program, audience served by their educational program and time devoted towards educational programs. In addition open ended questions were asked to gathered information on the critical needs, commonly occurring, and the future needs of people working in agriculture in eight occupational employment areas of agriculture.

PROFILE OF PARTICIPANTS

Agricultural Organization Affiliation

As indicated in Table 2, the organizations were divided into four areas for this study. The largest group represented with forty-five percent of the study population was the animal science organizations. The second largest affiliation was the groups categorize as agricultural support and agri-business with thirty-five percent of the return. These organization affiliations are with general

agriculture production. The agronomy related organizations represented ten percent of the organizations responding to this study. The final group was the special interests/horticulture organizations which represented the final ten percent of the study.

TABLE 2  
AGRICULTURAL ORGANIZATION AFFILIATION  
( N = 29 )

Industry Affiliation	Number	Response Rate	% of Respondents
Animal Science	13	46	45
Agronomy	3	30	10
Agricultural Support and Agribusiness	10	67	35
Special Interest	3	75	10
Total	29		100

#### Level of Organization

Table 3 reveals the level at which the organizations serves its members. As one might expect in a study involving organizations representing the agriculture industry in the state of Kansas, 65 percent of the organizations serve their members at the state level. Further analysis shows that 20 percent of the organizations serve their members at the national level. Seven percent of the organizations in the sample where local representative organizations and 3.5 percent serve its members at either the regional and area levels.

TABLE 3  
LEVEL AT WHICH THE ORGANIZATION SERVE ITS MEMBERS  
( N = 29 )

Level	Number	Percentage
International	0	0
National	6	21
Regional	1	3.5
State	19	65
Area	1	3.5
County	0	0
Local	2	7

#### Type of Organization

In Table 4 the data show 69 percent of the organizations have an educational interest. This is an indication that the organization has a strong concern for education in some form. The form may be the education of the public, group members, or youth programs. Thirty-five percent of the organizations are commodity oriented, in which the members of the organization are involved or interested in production agriculture. Thirty-one percent of the organizations have a special interest which brings

members together. Fourteen percent of the organizations were socially oriented groups.

TABLE 4  
TYPE OF ORGANIZATION

Type	Number <sup>a</sup>	Percentage
Political	3	10
Commodity Oriented	10	35
Special Interests	9	31
Social	4	14
Educational	19	65
Other		14
Promotional	2	
Agri-Business	1	
Seed certification	1	

<sup>a</sup> may be more than one answer per organization

#### Educational Program Provided By Organization

Seventy-six percent of the organizations survey indicated they provided an educational program or supported an educational program. In Table 5, the data show 41 percent of the organizations provided the educational programs for

the general public. This is an indication that these organizations are concerned with providing education assistance. Thirty-eight percent of the organizations provided educational programs or materials for adults and 35 percent provided programs for youth.

TABLE 5  
EDUCATIONAL PROGRAMS PROVIDED BY ORGANIZATION  
( N = 22 )

Group	Number <sup>a</sup>	Percentage
Youth	10	35
Adult	11	38
Group Members only	9	31
General Public	12	41
Other (Graduate Education)	1	3

<sup>a</sup>  
may be more than one answer

Percentage of Time Devoted to Educational Programs

In Table 6 data is presented concerning the amount of time organizations devoted to the development of educational programs or materials. Twenty-eight percent of the respondents indicated they devoted 5 percent or less towards the development of educational programs.

TABLE 6  
PERCENTAGE OF TIME DEVOTED TO EDUCATIONAL PROGRAMS  
( N = 25 )

Time devoted	Number	Percentage
Under 5 percent	7	28
6-10 percent	5	20
11-20 percent	4	16
21-30 percent	4	16
31-40 percent	2	8
41-50 percent	0	0
51-60 percent	0	0
61-70 percent	1	4
71-80 percent	1	4
81-90 percent	1	4
91-100 percent	0	0

#### Educational Needs of People in Animal Science

In Table 7 information can be found on the educational needs of people working in animal science related occupations. Since each question in the survey was optional only 15 of the 29 participants responded to this question. The various answers are in rank order according to the frequency of occurrence and are broken down into critical needs, commonly occurring needs, and future needs (see Appendix D for reporting format). It is easy to notice that some answers appear in each classification. This is interesting and noteworthy because these organizations feel these items are crucial to have in an educational program which is preparing people for employment in the animal science industry. A review of the data indicates that marketing and economic management, nutrition and animal health tended to be the areas of greatest need.

In table 8 the researcher has classify the topics in table 7 into four categories by type. The four categories and a definition for the categories are: Human Relations Skills, subject matter that is people oriented and involved a person's ability to work with other people; Management of Resources, subject matter relating to the management of a business, the ability to manage financial inputs and outputs, as well as general management skills; Knowledge and Practical Skills, subject matter relating to a person having the capability of completing the tasks involved in the

occupational area; and Research, responses from participants that indicated a need for additional research.

As might be expected, respondents indicated a strong need for knowledge and practical skill instruction, as well as management instruction.

Table 7

Rank Order of Educational Needs by Priority Category In  
Animal Science  
( N = 15 )

Item	Number of Responses
Critical Needs	
Marketing	4
Basic understanding of economics	2
Nutritional needs of animals	2
Practical hands on training	1
Broad based background in animal production	1
Internship in commercial industry	1
Dairy breed identification	1
Scientific training	1
Mechanical ability	1
Animal health	1
Genetics	1
Communication skills	1
Promotion	1
Range management	1
Management skills	1
Cost effective production	1
Financial management	1
Swine research	1

Table 7 (Continued)

Rank Order of Educational Needs by Priority Category In  
Animal Science  
( N = 15 )

Item	Number of Responses
<b>Commonly Occurring Needs</b>	
Nutrition	3
Animal health	2
Promotion	2
Advertising	1
Communication skills	1
Safe working environment	1
Health conditions of worker	1
Financial management	1
Marketing	1
Practical experience	1
Knowledge of dairy breeds	1
Genetics	1
carcass and meat industry knowledge	1
General animal science knowledge	1
Chemistry	1
Report research findings in trade publications	1
<b>Future Needs</b>	
Management skills	3
Marketing	2
Computer knowledge	1
Genetics	1
Promotion	1
Understanding the needs and wants of consumers	1
Technical research	1
Information for the part-time farmers	1

Table 8  
 Rank Order of Educational Needs By Type In  
 Animal Science  
 ( N = 15 )

Item	Number of Responses
Human Relations Skills	8
Management of Resources	19
Knowledge and Practical Skills	23
Research	5

#### Educational Needs of People Working in Agronomy

In Table 9 the researcher summarized the educational needs of people working in Agronomy. The various answers which were given are rank in order and are grouped into critical needs, commonly occurring needs and future needs. It is interesting to note that the understanding of economic concepts and marketing was the most frequent response given as a critical need of people who are involved in occupations concerning agronomy.

In Table 10 the researcher divided the responses in Table 9 into four categories by type, as explained previously. The four categories are Human Relations Skills, Management of Resources, Knowledge and Practical Skills, and

Research. Consistent with findings in animal science, knowledge and practical skill areas, followed by management of resources were of the greatest need.

Table 9

Rank Order of Educational Needs By Priority Category In  
Agronomy  
( N = 14 )

Item	Number of Responses
Critical Needs	
Economic concepts	4
Marketing	3
Computer knowledge	2
Soils	2
Chemistry	2
Plant disease control	2
Communication	1
Cost effective production	1
Management	1
Tax management	1
Entomology	1
Weed control	1
Government programs	1
Report research findings	1
Commonly Occurring Needs	
Soils	2
Crops	2
Safe work environment	1
Health	1
Biology	1
Meth	1
Soil conservation	1
Plant disease	1

Table 9 (Continued)

Rank Order of Educational Needs by Priority Category In  
 Agronomy  
 ( N = 14 )

Item	Number of Responses
Commonly Occurring Needs	
Management	1
Machinery operation	1
Entomology	1
Seed soundness	1
Marketing	1
Mechanical ability	1
Grass management	1
Economically crop production	1
Report research findings	1
Future Needs	
Marketing	2
Plant disease identification	1
Insect pests	1
Research on seed varieties	1
Genetics	1
Public opinions	1
Soils	1
sales and service	1
Computer knowledge	1

Table 10  
Rank Order Of Educational Needs By Type In  
Agronomy  
( N = 14 )

Type	Number of Responses
Human Relations Skills	2
Management of Resources	19
Knowledge and Practical Skills	28
Research	3
Other	

Educational Needs of People Working In Agriculture Mechanics  
and Agriculture Construction

In Table 11 the researcher has summarized information which the organizations have identified as educational needs for people who have occupations in agricultural mechanics and agriculture construction. There were a total of 11 organizations which responded to this question. As in Table 7 and Table 9 the responses are divided into critical needs, commonly occurring needs, and future needs. The respondents indicated repair and maintenance of equipment and buildings,

followed by safety and health as being the most needed education activities.

In Table 12 the researcher classified the items identify in Table 11 into the four type divisions. As with the previous agricultural area, knowledge and practical skill instruction followed by instruction in management of resources were the most frequently reported as needs.

Table 11

Rank Order of Educational Needs By Priority Category In Agricultural Mechanics and Agricultural Construction  
( N = 11 )

Item	Number of Responses
Critical Needs	
Equipment repair	1
Building repair	1
Solar construction	1
Cost conserving housing	1
Economical building construction	1
Machine development	1
Grain storage	1
Effective use of equipment	1
Commonly Occurring Needs	
Repair and maintenance	4
Safety	1
Physical sciences	1
Practical working experience	1
Diesel repair	1
Woodworking	1
Safe environment	1
Health	1

Table 11 (Continued)  
 Rank Order of Educational Needs By Priority Category In  
 Agricultural Mechanics and Agricultural Construction  
 ( N = 11 )

Item	Number of Responses
Future needs	
Safety	1
Grain infestation control	1
Value added facilities	1
New innovative, high tech equipment	1
Computers	1

Table 12  
 Rank Order of the Educational Needs By Type In  
 Agricultural Mechanics and Construction  
 ( N = 11 )

Item	Number of Responses
Human Relations Skills	0
Management of Resources	8
Knowledge and Practical Skills	14
Research	1

Educstional Needs of People In Agricultural Finance and Resource Management

The participants provided information concerning education needs of people who have occupations in agricultural related financial and resource management in Table 13. A total of 11 organizations responded to this question. As one might expect, they identified topics concerning economic concepts, marketing, management, accounting and other business related topics as critical and commonly occurring needs of people working in this area.

In Table 14 the researcher divided the information provided in Table 13 into the four type divisions. In contrast to previous findings participants identified management oriented instruction as the major need of people employed in agricultural finance and resource management.

Table 13

Rank Order of Educational Needs By Priority Category In  
 Agricultural Finance and Resource Management  
 ( N = 11 )

Item	Number of Responses
Critical Needs	
Economic concepts	4
Marketing	3
Management	3
Accounting	2
Commodity competition	1
Government programs	1
Farm tax	1
Credit use	1
Options (Future Markets)	1
Commonly Occurring Needs	
Management	3
Math	1
Computers	1
Bookkeeping	1
Production management	1
Practical experience	1
Business	1
Agricultural policy and law	1
Future Needs	
Computers	1
People working skills	1
Psychology	1
Credit	1
International agricultural trade	1

Table 14  
Rank Order of Educational Needs By Type In  
Agricultural Finance and Resource Management  
( N = 11 )

Type	Number of Responses
Human Relations Skills	2
Management of Resources	36
Knowledge and Practical Skills	6
Research	0

Educational Needs of People In Conservation of Natural Resources Occupations

In Table 15 the researcher has listed the information which participating organizations provided concerning the educational needs of people working in conservation of natural resources. Only six organizations choose to participate in this question. The responses are again divided into three sections, critical needs, commonly occurring needs, and future needs. It is interesting to note that most organizations identify soil and water conservation as a critical need for which education should be provided.

In Table 16 the information from Table 15 has been categorize by type. Similar to the findings for the first three occupational areas, major educational needs were identified for knowledge and practical skill instruction followed by management instruction.

Table 15

Rank Order of Educational Needs By Priority Category In  
Conservation of Natural Resources  
( N = 6 )

Item	Number of Responses
Critical Occurring Needs	
Erosion of soil	4
Water conservation	4
Clean and safe water supplies	1
Range management	1
Commonly Occurring Needs	
Physical sciences	1
Soil conservation	1
Water conservation	1
Water contamination	1
Future Needs	
Environment (use of Chemicals)	1

Table 16  
 Rank Order of the Educational Needs By Type In  
 Conservation of Natural Resources  
 ( N = 6 )

Type	Number of Responses
Human Relations Skills	0
Management	5
Knowledge and Practical Skills	10
Research	0

Educational Needs of People In Agricultural Processing  
 Occupations

The data in Table 17 provide information concerning the educational needs of people who are employed in agricultural processing occupations. Participants in this area identified needs in processing processes as the major need.

In Table 18 the researcher has classify the responses found in Table 17 into types of instruction. Again knowledge and practical skill instruction followed by management instruction were identified as areas where instruction is needed.

Table 17

Rank Order of Educational Needs By Priority Category In  
 Agricultural Processing  
 ( N = 8 )

Item	Number of Responses
Critical Needs	
Health	2
Marketing	2
Safe environment	1
International trade.	1
Food science training	1
Processing	1
Meat slaughter	1
Nutrition of livestock	1
Storage management	1
Commonly Occurring Needs	
Chemistry	1
Biology	1
Pollution control	1
Food science	1
Milling	1
Renewable energy resources from agriculture products	1
Future Needs	
Grain cleaning	1
Storage management	1
New product development	1

Table 18  
 Rank Order of Educational Needs By Type  
 Agricultural Processing  
 ( N = 8 )

Type	Number of Responses
Human Relations Skills	0
Management of Resources	9
Knowledge and Practical Skills	10
Research	1

Educational Needs of People in Agricultural Sales/Service Occupations

In Table 19 the researcher has summarized information concerning the educational needs of people who have occupations in agricultural sales/services. The information has been categorized as either critical needs, and commonly occurring needs. No needs were identify as future needs by the organizations which responded to the question. A review of the data reveal marketing, communications, and business practices as the major educational needs.

In Table 20 The researcher has classified the topics in Table 19 into four categories by type. Consistent with the

findings in agricultural finance and resource management, management of resources was the major type of instruction needed.

Table 19

Rank Order of Educational Needs By Priority Category In  
Agricultural Sales/Service  
( N = 10 )

Item	Number of Responses
Critical Needs	
Marketing	3
Collective bargaining	1
International trade	1
Management	1
Honesty and integrity	1
Farm management skills	1
Nutritional needs of livestock	1
Commodity knowledge	1
Communication	1
Knowledge of storage of chemicals	1
Commonly Occurring Needs	
Communication	2
Safety	1
Health	1
Bookkeeping	1
Advertising	1
Commodity knowledge	1
Management	1
Computers	1

Table 20  
Rank Order of Educational Needs By Type In  
Agricultural Sales/Service  
( N = 10 )

Type	Number of Responses
Human Relations Skills	5
Management of Resources	11
Knowledge and Practical Skills	6
Research	0

## CHAPTER V

### SUMMARY AND RECOMMENDATIONS

The purpose of this chapter is to present a review of the study. A review of the purpose, objectives and procedures of the study are included. Also included in this chapter are the investigator's recommendations based on the major findings.

#### Summary of the Study

##### Purpose

The primary purpose of this study was to conduct an needs assessment of the educational needs of people who work in agriculture or agricultural related industries in Kansas.

##### Objectives

Three specific objectives were identified as guides in the development and evaluation of this study:

1. Determine current and future educational needs of the agriculture industry.
2. Compile a list of active agricultural organizations in Kansas which conduct some form of education program.

3. Provide a stronger link between the Agricultural Education profession and the agricultural organizations in Kansas.

#### Methodology

This study was conducted to make an assessment of the educational needs of people who are currently working, or planning to work in the agricultural industry in Kansas. The study was designed to obtain information concerning educational need from agricultural organizations in the state. One hundred thirteen agriculture organizations were identified in Kansas. A random sample of 56 (50 percent) agriculture organizations were sent questionnaires. Twenty-nine (52 percent) of the sample returned the questionnaire.

The survey instrument contained checklist type questions to obtain general background information on the organizations. In addition, open-ended questions were used to gather information on seven occupational areas: animal science, agronomy, agricultural mechanics and agriculture construction, agricultural finance and resource management, conservation of natural resources, agricultural processing, and agricultural sales/service. Respondents were asked to identify areas or topics in which agricultural workers need to receive additional education. In addition, they were to

specify if such needs were critical needs (educational needs which are absolutely essential for people working in agriculture), commonly occurring needs (educational needs which are frequently shared by people working in agriculture), future needs (educational needs that may become necessary for individuals to work effectively in agriculture in the near future).

#### Major Findings

The following items are the major findings of this study:

##### Description of Sample

1. The majority (65 percent) of the agricultural organizations in the study, are state level organizations.
2. Twenty-one percent of the agricultural organizations in the study served its members at the national level.
3. Thirty-five percent of the organizations sampled, were commodity oriented.
4. Sixty-nine percent of the organizations in the survey indicated they had an educational interest.
5. Seventy-six percent of the organizations in the study indicated they either provided an

educational program or supported an educational program.

6. The majority of the organizations provided educational programs for more than one type of audience. The educational programs which were provided by the organizations were directed towards the following audiences:

General public	- Forty-one percent
Adults	- Thirty-eight percent
Youth	- Thirty-five percent
Group Members Only	- Thirty-one percent
Other	- Three percent

7. The majority of the organizations surveyed (88 percent) spent less than forty percent of their time, devoted towards educational programs. Twelve organizations (48 percent) indicated they spent less than ten percent of their time, devoted towards educational programs.

### *Analysis of the Educational Needs Data*

1. The respondents' perspective of the educational needs of people working in animal science related occupations indicated that knowledge and practical skills instruction is very important. The responses also indicated that marketing, economics and animal nutrition were the most frequently mentioned critical needs. Nutrition, animal health and promotion where the most frequently mentioned commonly occurring needs. While management skills and marketing were the most frequently identified future needs.
2. The respondents' perspective of the educational needs of people working in agronomy related occupations indicated that knowledge and practical skills instruction is needed. Economics, marketing, computer knowledge, soils, chemistry and plant diseases were the most frequently identified as critical needs. Soils and crops were the most frequently identified commonly occurring needs. The responses indicated marketing was a future need.
3. The respondents' perspective of the educational needs of people working in agricultural mechanics and agricultural constructions related

- occupations, indicated that knowledge and practical skills is very important. Repair and maintenance was the most frequently identified as a commonly occurring need for education.
4. The respondents' perspective of the educational needs of people working in agricultural finance and resource management related occupations, indicated that instruction in the management of resources is greatly needed. The most frequent responses as a critical need were economics, marketing, management, and accounting. While management was the most frequent identified commonly occurring need.
5. The respondents' perspective of the educational needs of people working in conservation on natural resources related occupations, indicated that instruction is needed in knowledge and practical skills. The most frequently identified as a critical needs was soil erosion and water conservation.
6. The respondents' perspective of the educational needs of people in agricultural processing related occupations indicated that instruction is needed in both management of resources, and in knowledge and practical skills. Health and marketing were

the most frequently listed response as a critical need.

7. The respondents' perspective of the educational needs of people on agricultural sales/service indicated that instruction is needed in the management of resources. The most frequent response as a critical need was marketing. While communications was the most frequent response as a commonly occurring need.

#### Recommendations

1. Agricultural educators at all levels should utilize materials and programs provided by agricultural organizations to aid and enhance instruction whenever appropriate.
2. Whenever possible, agricultural educators should provide assistance to agriculture organizations which provide educational programs or develop instructional materials.
3. Agricultural organizations should be encouraged to continue providing educational programs and materials.
4. Opportunities to gain practical hands-on experience must be continued at the secondary level.

5. Educators at the post-secondary levels should encourage students to gain on the job experience in their field of interests.
6. Students who are interested in entering occupations in animal science or agriculture sales/service, need to be encouraged to actively participate in extra-curricular activities and organizations. Students need to be involved in activities which will provide experience in communications, working with people and promotion activities.
7. People who want to be employed in the agricultural industry need more education in agricultural economics. People who work in all areas of agriculture need more knowledge in marketing, finance, management, economics concepts, and cost effective production.
8. People who plan to enter an occupation in the animal science industry need education in marketing, economics, management and in a wide range of specific areas in animal science like: genetics, nutrition, breed identification, veterinary/health, and carcass knowledge.
9. People who plan to enter occupations in the animal science industry need to understand promotion,

advertising and the needs and concerns of the consumer.

10. People who enter occupations in the agronomy industry need education in economics, marketing, computers, management, and in specific agronomy areas like: soils, crops, chemistry, plant diseases, and entomology.
11. People who enter occupations in the agricultural mechanics and agricultural construction industry need education in general repair and maintenance, equipment repair, building repair, safety, and exposure to high tech equipment.
12. People who enter occupations in relating to agricultural finance and resource management need education in economics, marketing, management, accounting, and computers.
13. People who enter occupations in conservation of natural resources related occupations need education in water and soil conservation.
14. People who enter occupations in agricultural processing need education in marketing food science, health, processing, storage management and other related areas.
15. People who enter into occupations in agricultural sales/service need education in marketing, communication, management, and commodity knowledge.

16. A list of educational programs and instructional materials which are develop or conducted by agricultural organizations in Kansas should be compile on a yearly basis. This information should be made available to vocational agriculture teachers, educators at technical schools, community colleges, extension educators and other interested parties.

#### Recommendations for Further Studies

A study should be conducted in the future based on the data collected in this study. A survey questionnaire can be develop for each occupation area using a multiple answer question and a Likert scale. The questions should be formulated based on the data received from this study on the educational needs of people working in each of the occupation area identify in this study.

In addition, another study can be conducted to determined to what extent are the educational programs and instructional materials, which are develop by agricultural organizations used by agricultural educators in classroom instruction.

## BIBLIOGRAPHY

- Agriculture 2000 A Look at the Future, (1983). Battelle Press.
- Davis, John H. and Ray A. Goldberg, (1957). A Concept of Agribusiness. Harvard Business School, Division of Research, Boston. p.2.
- Kansas State Board of Agriculture, (1986). Kansas Farm Facts 1985, Printed by the Kansas State Board of Agriculture, Topeka, Kansas.
- Kansas State Board of Agriculture, (1985). 67th Annual Report and Farm Facts, Printed by Kansas State Board of Agriculture, Topeka, Kansas.
- Kansas State Department of Education, (1986). "Vocational Education Guidelines", Printed by the Kansas State Department of Education, Topeka, Kansas.
- Lee, Jasper, S., (1981). "What Are We Doing For Agricultural Industry". The Agricultural Education Magazine, 54, 6, page 3. December.
- Legacy, James (1977). "A Model For Assessing Employment Needs In Agribusiness Firms", (Report No. CE-013-081). Purdue University, Department of Education, Lafayette Indiana. (ERIC Document Reproduction Service No. ED 146-364).

- Long, Gilbert, A. (1983). "Agricultural Education In An Environment of Decreasing Resource", The Agricultural Education Magazine, 55, 10, page 6-8. April.
- United States Department of Agriculture, (1981). "Graduates of Higher Education in The Food and Agricultural Sciences", Miscellaneous Publication Number 1385.
- United States Department of Commerce, (1985). "County Business Patterns, 1985, Kansas", Bureau of Census, Goverment Printing Office, Washington D.C.
- United States Department of Commerce, (1985). "Farm Population of the United States 1985", Series P-27, No. 29, Bureau of Census.
- VanAusdile, Steven L. (1983). "Planning Postsecondary Programs: Better Future During Tough Times". The Agricultural Education Magazine, 55, 10. pp.6-11, April.

## APPENDICES

APENDIX A

LIST OF AGENCIES WHICH IDENTIFY AGRICULTURE  
ORGANIZATIONS IN KANSAS

LIST OF AGENCIES WHICH IDENTIFY AGRICULTURE  
ORGANIZATIONS IN KANSAS

Dr.. Walter Woods, Dean of Agriculture  
Kansas State University  
Waters Hall  
Manhattan, Kansas 66506

Sam Brownback, Secretary of Agriculture  
State Board of Agriculture  
109 SW 9th. Street  
Topeka, Kansas 66612

Fran Parmley, Administrator  
Kansas Foundation for Agriculture in The Classroom  
Kansas State University  
Bluemont Hall  
Manhattan, Kansas 66506



**Department of Adult  
and Occupational Education**

College of Education  
Bluemont Hall 363  
Manhattan, Kansas 66506  
913-532-6636

December 15, 1986

Dear

In order to maintain a quality educational program in agriculture it is essential to identify the educational needs of people working in agriculture. As part of my master's study I will be determining these educational needs as viewed by agricultural agencies and organizations in Kansas.

I am asking for your assistance in identifying agricultural organizations and agencies. I need to compile a list of such groups that would have an understanding of the needs of agriculture. Any assistance you are able to provide in identifying these agricultural agencies and organizations in Kansas will be greatly appreciated. Enclosed is a self addressed, stamped envelope to facilitate the return process. I would like to have this list return by January 9, 1987.

I feel in contacting these agencies and organizations I can conduct a study which will provide agriculture educators a better understanding of the educational needs of agriculture. The information gathered will be of interest to agricultural educators at the secondary, postsecondary and university level. In addition, the cooperative extension service may be able to utilize this much needed information.

Your cooperation to help make this study a success is genuinely appreciated.

Sincerely,

James E. Hall  
Master Of Science student in Agricultural Education

cc. John D. Parmley, Major Professor

APPENDIX B

LIST OF AGRICULTURE ORGANIZATIONS WHICH  
RECEIVED A SURVEY INSTRUMENT

LIST OF AGRICULTURE ORGANIZATIONS WHICH RECEIVED A SURVEY  
INSTRUMENT

Organization Contact Person, Title	Address	City, State, Zip
Kansas Gelbvieh Association Allen Albers	R.R. 2	Cunningham, Ks. 67035
Kansas Interbreed Dairy Council Dale Bodenhausen, President		Muscotah, Ks. 66508
Kansas Brangus Association Darrel Falger, Vice-President	R.R. 3	Ottawa, Ks. 66067
Kansas Purebred Council Lloyd Clarkson, Chairman	R.R. 1	WinfIELD, Ks. 67156
Kansas Spot Association David Coltrain	R.R. 2	Neodesha, Ks. 66757
Kansas Livestock Association Dee Likes, Executive Vice-President	2044 Fillmore	Topeka, Ks. 66604
Kansas Jersey Cattle Club Elwood Schmidt		Manhattan, Ks. 66502
Kansas Guernsey Breeders Frank McCready, President		Bennington, Ks. 67422
Kansas Pork Producers Council Mike Jensen, Vice-President	2601 Farm Bureau Road	Manhattan, Ks. 66502
Kansas Cow/Calf/Stocker Council Gene Brinkman, Chairman	R.R. 3	Arkansas City, Ks. 67005
Kansas Milking Shorthorn Society Harley Headings, President		Hutchinson, Ks. 67501
Kansas Veterinary Medical Assn. Homer K. Caley, Executive Director	227 S. Wind Place	Manhattan, Ks. 66502
Kansas Sheep Assn. Auxiliary Hulda Graver, President		Rush Center, Ks. 67575
Holstein-Friesian Assn. of Ks. Jack Sexton, President		Abilene, Ks. 67410
Kansas Duroc Association Jerry Sleichter	R.R. 4	Abilene, Ks. 67410

Dairy Council of Greater KC Karen Hamilton, Director	5200 E. 45th.	Kansas City, Missouri 64130
Kansas Hereford Auxiliary Virginia Meitler, President	R.R. 1	Lucas, Ks. 67648
Kansas Hampshire Association Lyle Shipley	R.R. 1	Esbon, Ks. 66941
Kansas Yorkshire Association Michael Croucher	R.R. 2	Westphalia, Ks. 66093
Kansas Limousin Breeders Mina Slusher, Secretary-Treasurer	525 Market	Osage City, Ka. 66523
Kansas Meat Processors Assn. Nelson Buckles, Secretary Treasurer	318 E. Maple	Independence, Ks. 67301
Kansas Hereford Association Larry Yingling, President	9234 NE Indian Creek	Topeka, Ks. Road
Kansas Pork Council Women Roberta Harms, President	R.R.1	Whitewater, Ks. 67154
Kansas Maine Anjou Association Scott Sparks, President	R.R. 2	Kingman, Ks. 67068
Kansas Brown Swiss Breeders Waldo F. Enns, President		Inman, Ks. 67546
Kansas Cattle Feeders Council Warren Weibert, Chairman	Box 7	Oberlin, Ks. 67749
Kansas Assn. of Corn Growers Harry Wullsleger, President	R.R. 1	Home, Ks. 66438
Kansas Assn. of Wheat Growers Howard Tice, Executive Director	Box 2349	Hutchinson, Ks. 67501
Kansas Crop Improvement Assn. Lowell Burchett, Executive Director	2000 Kimball	Manhattan, Ks. 66502
Ks. Crop & Soils Industry Council Charles Hamon, President	R.R. 1	Valley Falls, Ks. 66088
Kansas Soybean Commission Russ Sylvester	R.R. 3	Ottawa, Ks. 66067
Kansas Wheathearts Saralee Bentlee, President		Shields, Ks. 67874

Central Kansas Cotton Growers Ted Schafer, President	R.R. 2	Sterling, Ks. 67579
Kansas Grain & Feed Dealers Assn. Box 949 Tom Tunnell, Executive Vice-President		Hutchinson, Ks. 67504
Wheat Quality Council Tom Roberts, Executive Vice-President	404 Humbolt	Manhattan, Ks. 66502
Land Improvement Contractors Assn. 1237 E. 37th. Topeka, Ks. Rocky Vaek, Executive Manager		66605
Kansas Ag. Alumni Assn. David Mugler, Executive Secretary	117 Water Hall KSU	Manhattan, Ks. 66506
Kansas Farm Bureau Doyle J. Rahjes, President	2321 Anderson	Manhattan, Ks. 66502
Kansas Young Farm Women Connie Egbert, President	R.R. 1	McCune, Ks. 66753
Kansas Water Resources Inst. Floyd Smith, Director	14 Water Hall KSU	Manhattan, Ks. 66506
State Assn. of Watersheds Lowell Abelldt, President	302 N. Broadway	Abilene, Ks. 67410
W.I.F.E. Nancy Speigel	Box 22	Formosa, Ks. 66942
Ks. Assn. of Ag. Extension Agent Courthouse Robert Bozworth, President		Ottawa, Ks. 66067
Kansas State Grange Vesta Laws, Executive Secretary	R.R. 1	Meriden, Ks. 66512
Kansas Agri-Women Viola Dodge, President	R.R. 1	Olsburg, Ks. 66520
Kansas Cooperative Council of Farmers Coop Elevators Assn. Ed Needham, President	Box 340	Cheney, Ks. 67025
Ks. Extension Agents Assn. Margaret Hund, President	Jackson County Extension	Holton, Ks. 66436
Kansas Fairs Association Jim Bohart, Secretary-Treasurer	633 West 16th.	Larned, Ks. 67550

Committee of Kansas Farm            2301 SW 33rd.       Topeka, Ks.  
Organizations  
Kathy Peteraon, Legislative Agent

National Farmers Organization            Jennings, Ks.  
Paul Nauer, President                      66612

Society for Safer Agriculture            Seaton Hall           Manhattan, Ks.  
Richard Jepson                              KSU                      66506

APPENDIX C  
COVER LETTER SENT TO PARTICIPANTS



**Department of Adult  
and Occupational Education**

College of Education  
Bluemont Hall 383  
Manhattan, Kansas 66506  
913-532-5535

March 11, 1987

Dear,

In order to maintain a quality educational program in agriculture it is essential to identify the needs of people working in the agriculture industry. As part of a study being conducted by the Agricultural Education faculty at Kansas State University I will be determining these educational needs as viewed by agricultural organizations in Kansas.

As part of the study your organization has been randomly selected to be surveyed. Enclosed is an Agricultural Education Needs Assessment questionnaire which I would like you to fill out and return. As the contact person for your organization I feel you can answer these questions as viewed from your organization's perspective. Also enclosed is a self addressed, stamp envelope to facilitate the return process. I would like to have this questionnaire return by March 26, 1987.

The information received will be held in strict confidence and disclosed in group information only. If you have any questions or concerns feel free to contact me at the above address or call (913) 532-5904.

Your assistance will be greatly appreciated by the Agricultural Education faculty at Kansas State University, as we look for ways to enhance Agricultural Education programs.

Sincerely,

James E. Hall  
Project Coordinator

c.c. Dr. John D. Parmley

APPENDIX D  
SURVEY INSTRUMENT SENT TO STUDY PARTICIPANTS

AGRICULTURAL EDUCATION NEEDS ASSESSMENT QUESTIONNAIRE

SECTION I-BACKGROUND INFORMATION

1.) Organization name \_\_\_\_\_

2.) Number of members in organization \_\_\_\_\_

3.) At what level does the organization serve its members. (Check the most appropriate answer.)

- International
- National
- Regional
- State
- Area
- County
- Local
- Other(specify) \_\_\_\_\_

4.) What is the primary purpose of the organization? (A copy of the purpose statement from the organization by-laws may be attached to the survey if it answers the question.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5.) Type of organization? (Check all appropriate answers.)

- Political
- Commodity oriented
- Special interests
- Social
- Educational
- Other(specify) \_\_\_\_\_

6.) Does the organization have an educational program? yes \_\_\_\_ no \_\_\_\_ If yes, at what group is the program directed?  
(check all appropriate answers.)

- Youth (4-H, FFA)
- Adults
- Group Members only
- General Public
- Other(specify) \_\_\_\_\_

OVER

7.) What percentage of time is devoted by the organization toward the development of educational programs or materials?(check most appropriate answer.)

- under 5%
  - 6-10%
  - 11-20%
  - 21-30%
  - 31-40%
  - 41-50%
  - 51-60%
  - 61-70%
  - 71-80%
  - 81-90%
  - 91-100%
- 

## Section II.

Directions: The next four pages contains two sections, Occupations in Production Agriculture and Occupations in Agri-Business. Each section contains statements concerning specific occupations areas. Please read each of those statements and identify necessary educational requirements for people working in those occupational areas. Please identify topics which, from your organization perspective, are needed for people entering into a agriculture field. Classify those needs as one of the following:

Critical Needs- Educational needs which are absolutely essential for people working in agriculture.

Commonly Occurring Needs- Educational needs which are frequently shared by people working in agriculture.

Future Needs- Educational needs that may become necessary for individuals to work effectively in agriculture in the near future. (1 to 5 years)

If you feel you are unable to identify and classify the educational needs of people for the occupational area for a question please write in "NA" for the question.

CONTINUED ON NEXT PAGE

## OCCUPATIONS IN PRODUCTION AGRICULTURE

- 1.) From your organization's perspective indicate and classify the educational needs of people working in Animal Science related occupations?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

- 2.) From your organization's perspective indicate and classify the educational needs of people working in Agronomy related occupations?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

cover

- 3.) From your organization's perspective indicate and classify the educational needs of people involved in Agricultural Mechanics and Agricultural Construction related occupations?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

- 4.) From your organization's perspective indicate and classify the educational needs of people involved in Financial and Resource Management and related occupations?

CONTINUED ON NEXT PAGE

- 5.) From your organization's perspective indicate and classify the educational needs of people involved in Conservation of Natural Resources related occupations?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

## AGRI-BUSINESS OCCUPATIONS

- 6.) From your organization's perspective identify and classify the educational needs of people working in Agricultural Processing related occupations?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

OVER

- 7.) From your organization's perspective indicate and classify the educational needs of people working in an Agriculture Financial Institution or related occupation?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

- 8.) From your organization's perspective indicate and classify the educational needs of people working in an Agricultural Sales/Service related occupation?

CRITICAL NEEDS	COMMONLY OCCURRING NEEDS	FUTURE NEEDS

Thanks for assistance in filling out this survey. If you have any questions or concerns feel free to contact me at:

James E. Hall  
Agricultural Education  
Kansas State University  
Bluemont Hall 342  
Manhattan, Kansas 66506  
Telephone 913/532/5904

APPENDIX E  
FOLLOW-UP LETTER SENT TO STUDY PARTICIPANTS



**Department of Adult  
and Occupational Education**

College of Education  
Bluemont Hall 363  
Manhattan, Kansas 66506  
913-532-5535

April 6, 1987

Dear:

I need your participation and assistance! Recently you received a Agricultural Education Needs Assessment questionnaire from me. At this mailing, I have not received your survey. If it has been returned, I thank-you. If not, will you take a few minutes and complete the enclosed survey and return it to me TODAY!!

This survey is part of a study being conducted to determine the educational needs of people working in the agricultural industry. The information gather in this study will be made available to the Kansas Vocational Agriculture Teachers Association(KVATA), Cooperative Extension Service, Agriculture Educators at Kansas State University and other agricultural education groups in the state of Kansas.

As the contact person for your organization, I feel you can identify skills and competencies needed by people who are preparing themselves for a career in the agricultural industry. By identifying the skills and competencies needed to work in the various occupational areas, agricultural educators at all levels can better prepared people to be involved in agriculture as a career.

The information received will be held in strict confidence and disclosed in group information only. If you have any questions concerning the questionnaire or the study itself, please feel free to contact me at the above address or call me at (913) 532-5904.

Thanks again,

James E. Hall  
Agricultural Education  
Graduate Teaching Assistant

c.c. Dr. John Parmley

Enclosures

APPENDIX F

NOTICE WHICH WAS SENT TO SURVEY PARTICIPANTS

NOTICE

This survey is being conducted under guidelines established by Kansas State University. By cooperating, you will assist the survey administrators in answering important questions, however, your participation is strictly voluntary. You may omit any question which you feel unduly invades your privacy.

Confidentiality is guaranteed; your name will not be associated with your answers in any public or private report of the results.

APPENDIX G

CORRESPONDENCE WITH AGRICULTURAL EDUCATION AND  
AGRICULTURAL MECHANICS FACULTY



**Department of Adult  
and Occupational Education**

College of Education  
Bluemont Hall 363  
Manhattan, Kansas 66506  
913-532-5535

January 29, 1987

To: Agricultural Education & Agricultural Mechanics Faculty

From: James E. Hall

Re: Review Enclosed Survey

The following is a survey questioner which will be sent to random selected agricultural organizations in Kansas. The questioner will be sent to the contact person of the selected organization.(executive officer, secretary or president) The organizations which make up the population were identify by the following:

Dr. Walter Woods, Dean of Agriculture  
Sam Brownback, State Secretary of Agriculture  
Fran Parmley, Administrator, Kansas Foundation for  
Agriculture in the Classroom

The purpose of this study is to determined the educational needs of people working in Agriculture, as viewed by agricultural organizations in Kansas.

Please review this survey and write any comments or suggestions you made have down on this survey. I would like to have this survey return to me with your suggestions by February 3, 1987.

Thanks for your time in making this a quality study.

James E. Hall  
Graduate Teaching Assistant  
Agricultural Education  
Bluemont 342

AN ASSESSMENT OF THE EDUCATIONAL NEEDS OF PEOPLE WHO WORK  
IN AGRICULTURE OR AGRICULTURE RELATED INDUSTRIES

by

JAMES EUGENE HALL

B.S., Kansas State University, 1985

---

AN ABSTRACT OF A MASTER'S REPORT

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

AGRICULTURAL EDUCATION

KANSAS STATE UNIVERSITY  
Manhattan, Kansas

1987

Agriculture/Agribusiness in Kansas is basic to the economy of the state, generating billions of dollars and requiring the efforts of approximately one-third of the Kansas labor force. Because of the importance of the agriculture industry, agricultural educators must provide workers with the necessary skills and knowledge. The purpose of this study was to conduct an needs assessment of the educational needs of people who work in agriculture or agriculture related industries.

A survey instrument was sent to the contact person for 56 randomly selected agriculture organizations in Kansas. Twenty-nine (52 percent) choose to participate in the study. Open ended questions where ask to obtained the critical needs, commonly occurring needs and future needs of people who work in eight occupation areas of agriculture.

People who work in the agricultural industry need more knowledge in agricultural economics. People in every occupation area of agriculture need more educational preparation in marketing, finance, management, economic concepts and cost effective production.

The study indicated people need more practical hands-on experience in agricultural production. People who are employed in agribusiness need to be more aware of production costs, farm management and have more commodity knowledge.

More training and preparation is needed for people in the latest technology available in agriculture.

Those people who work in animal production need practical experience and knowledge of all aspects of the livestock industry. In addition, they need to be aware of the needs and wants of the consumer. Those who are employed in crop production also need practical experience and knowledge in all aspects of agronomy.

Those people who are employed in agricultural mechanics and agricultural construction need to be prepared to handle a broad area of repairs and construction.

For those people who enter occupations involving conservation of natural resources, they need education relating to water and soil conservation.

For those people who plan to enter into occupations in agricultural processing, they need education in food science, health, processing and storage management.

For those people who are entering occupations relating to agricultural finance, they need education in areas of finance, farm management, marketing, production costs and human relation skills.